Claims

1. A conductive article comprising:

a substrate; and

a conductive layer formed on a surface of the substrate and comprising fine conductive fibers that are dispersed in the conductive layer,

wherein a portion of at least some of the fibers is fixed to the substrate and other portion of said at least some of the fibers protrude from a top surface of the conductive layer, and the fibers are arranged to be electrically in contact with each other.

2. The conductive article of claim 1, wherein the fibers are electrically in contact each other at the portions protruding form the top surface or at the portions fixed to the substrate.

3. The conductive article of claim 1, wherein the substrate comprises a substrate body and a surface layer, and the portions of the fibers fixed to the substrate are fixed to the surface layer.

4. The conductive article of claim 1, wherein the portion of the fibers fixed to the substrate are an end part of the fibers or a middle part of the fibers.

5. The conductive article of claim 1, wherein each of the fibers is separated form other fibers, and when the fibers form a plurality of bundles of fibers each bundle of the fibers is separated from other bundles.

6. The conductive article of claim 1, wherein the fibers are carbon fibers.

7. The conductive article of claim 6, wherein the carbon fibers are carbon nanotubes.

8. The conductive article of claim 1, wherein the thickness of the conductive layer is from 5 to 500 nm.

9. The conductive article of claim 1, wherein the surface layer is formed of a curable resin.

10. The conductive article of claim 1, wherein the surface layer is formed of a thermoplastic resin.

11. The conductive article of claim 1, wherein the conductive article has a surface resistivity of 10^0 to 10^{11} Ω/□.

12. The conductive article of claim 1, wherein the conductive layer has a 550 nm light transmittance of at least 50 % and a surface resistivity of from 10^0 to 10^5 Ω/□.

13. A method of forming a conductive article comprising:

forming a conductive layer on a surface of the substrate, wherein said layer comprises fine conductive fibers that are dispersed, and a portion of at least some of the fibers is fixed to the substrate and other portion of said at least some of the fibers protrude from a top surface of the conductive layer, and the fibers are arranged to be electrically in contact with each other.

14. The method of claim 13, wherein the fibers are electrically in contact each other at the portions protruding form the top surface or at the portions fixed to the substrate.

15. The method of claim 13, wherein the substrate comprises a substrate body and a surface layer, and the portions of the fibers fixed to the substrate are fixed to the surface layer.

16. The method of claim 13, wherein the portion of the fibers fixed to the substrate are an end part of the fibers or a middle part of the fibers.

17. The method of claim 13, wherein each of the fibers is separated form other fibers, and when the fibers form a plurality of bundles of fibers each bundle of the fibers is separated from other bundles.

18. The method of claim 13, wherein the fibers are carbon fibers.

19. The method of claim 18, wherein the carbon fibers are carbon nanotubes.

20. The method of claim 13, wherein the thickness of the conductive layer is from 5 to 500 nm.

21. The method of claim 13, wherein the surface layer is formed of a curable resin.

22. The method of claim 13, wherein the surface layer is formed of a thermoplastic resin.

23. The method of claim 13, wherein the conductive article has a surface resistivity of from 10^0 to 10^{11} $\Omega/\square$.

24. The method of claim 13, wherein the conductive layer has a 550 nm light transmittance of at least 50 % and a surface resistivity of from 10^0 to 10^5 $\Omega/\square$.